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EXAMINER	
QUAN, ELIZABETH S	
ART UNIT	PAPER NUMBER
1743	6

DATE MAILED: 03/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/811,999	SHA ET AL.	
	Examiner	Art Unit	
	Elizabeth Quan	1743	

-- Th MAILING DATE of this communication app ars on the cover she t with th corr spondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-54 is/are pending in the application.

4a) Of the above claim(s) 21-36 and 43-54 is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-20 and 37-42 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3,4 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-20 and 37-42, drawn to a microplate, classified in class 422, subclass 102.

II. Claims 21-28 and 43-48, drawn to a method of using a microplate, classified in class 436, subclass 180.

III. Claims 29-36 and 49-54, drawn to a method of making a microplate, classified in class 264, subclass 328.1.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the process for using the product as claimed can be practiced with another materially different product, such a multi-compartmented petri dish, dipstick, or test strip. Also, the product as claimed can be used in a materially different process of using that product, such as not sealing the opening of each well since the claim 1 and 37 do not recite a sealing element or not depositing anything in the first well.

3. Inventions I and III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be

made by another and materially different process (MPEP § 806.05(f)). In the instant case the process as claimed can be used to make other and materially different product, such as an ice cube tray, multi-compartmented petri dish, dipstick, or test strip. Also, the product as claimed can be made by another and materially different process, such as laminating and pressing a plastic into a frame and thermoforming the wells.

4. Inventions II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are not disclosed as capable of use together, as invention III must occur before invention II. Invention III makes the microplate, and Invention II requires the existence of the microplate. The inventions also have different modes of operation, functions, and effects. Invention III makes the microplate by injection molding into a mold cavity, and Invention II uses a microplate to deposit proteins and/or reagents into the well.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

6. During a telephone conversation with William J. Tucker on 2/24/2003 a provisional election was made without traverse to prosecute the invention of I, claims 1-20 and 37-42. Affirmation of this election must be made by applicant in replying to this Office action. Claims 21-36 and 43-54 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Specification

8. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

10. Claims 10-20 and 37-42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

11. Referring to claims 10 and 37, it is unclear how to compare the concentrations of the reagent solutions. It is also unclear what is really being compared since the mixture of protein solution and reagent solution constitutes a reagent solution in totality. Is the comparison of the solutions made before or after mixing the protein and reagent solutions?

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 1, 3-7, 9, 10, 12-18, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 00/00678 to Hol et al.

Referring to claims 1, 3-7, 9, 10, 12-18, and 20, Hol et al. disclose a microplate or high-throughput protein crystallization plate (10) comprising a frame (12) with a plurality of wells (26) formed therein (see ABSTRACT; FIGS. 1 and 2; PAGE 19, lines 1-8). Each well (26) includes a first well (32) with a relatively small concaved reservoir and second well (28) with a relatively large reservoir positioned near the relatively small concaved reservoir of the first well (32) (see FIGS. 1 and 2; PAGE 19, lines 1-8). According to Merriam Webster Collegiate Dictionary, adjacent is defined as not distant or nearby. The first and second wells are near each other not distant from each other; therefore, the first and second wells are adjacent to one another. A channel (30) connects the first and second wells to one another (see FIG. 2; PAGE 19, lines 5 and 6).

According to Merriam Webster Collegiate Dictionary, capable is defined as having traits conducive to or features permitting, and enable is defined as to provide with the means or opportunity or make possible, practical, or easy. Therefore, the first well is **capable** of or permits receiving of a protein and reagent solution, and the second well is **capable** of or permits receiving of a reagent solution that has a higher concentration than the reagent solution within the first well. The first and second wells only need the ability or have the potential to receive the solutions. The first and second wells do not actually have to contain the solutions. Additionally, referring to claim 14, the frame has a

footprint that is **capable** of or permits being handled by a robotic system. The frame only needs the footprint to have the ability or potential for being handled by a robotic system. The frame along with the footprint does not actually have to be handled by a robotic system. Analogously, since claim 15 is dependent on claim 14, the microplate has a footprint that is **capable** of or permits being handled by a Society of Biomolecular Screening compatible robotic handling system. The microplate only needs the footprint to have the ability or potential for being handled by a Society of Biomolecular Screening compatible robotic handling system. The microplate along with the footprint does not actually have to be handled by a Society of Biomolecular Screening compatible robotic handling system. Additionally, referring to claims 6, 16, and 42, the wording of the claim allows for or requires that each well be positioned on the frame so as to **enable** or make possible or provide the opportunity of a liquid handling system to automatically deposit a sample solution into the first well and deposit a reagent solution into the second well. The wells only need to have the ability or potential for being handled by a liquid handling system. The wells do not actually have to participate in the act of receiving the solutions deposited by the liquid handling system. Analogously, since claim 17 is dependent on claim 16, each well is positioned on the frame so as to **enable** or make possible or provide the opportunity of a Society of Biomolecular Screening compatible liquid handling system to automatically deposit a sample solution into the first well and deposit a reagent solution into the second well. The wells only need to have the ability or potential for being handled by a Society of Biomolecular Screening compatible liquid handling system. The wells do not actually have to participate in the act of receiving the

solutions deposited by the Society of Biomolecular Screening compatible liquid handling system..

However, Hol et al. disclose in EXAMPLE 1 that the first well or drop chamber (32) receives two microliters of the crystallization from the second well or central chamber/reservoir (28) (see PAGE 20, lines 8-10). Two microliters of dissolved protein is mixed with the two microliters of crystallization solution in the first well or drop chamber (32), and the crystallization chambers were sealed with Crystal Clear tap (see PAGE 20, lines 10-12). The dissolved protein was made by: 1) adding 1M ammonium hydroxide to a protein slurry until the solution becomes transparent, 2) adjusting the solution to 200 mM sodium chloride by the addition of 5 M sodium chloride stock solution, and 3) adjusting the solution to pH 7.0 by addition of 0.1 M hydrochloric acid (see PAGE 19, lines 29-35; PAGE 20, lines 1-5). The final concentration of protein was determined to be 30 milligrams per millimeter, which is equivalent to 0.03 gram per milliliter or 3 grams per 100 milliliters or 3% (w/v) protein solution (see PAGE 20, lines 1 and 2). The protein crystallized in solution number 8 of Solution Set III or Table III (see PAGE 9). Solution number 8 is made of 2.0 M $(NH_4)_2SO_4$ or 26.4% (w/v) $(NH_4)_2SO_4$ using the molecular weight 132.1342 grams per mole of $(NH_4)_2SO_4$ (see PAGE 9). Solution number 8 may optionally contain 0.1 M buffer (see PAGE 9; PAGE 14, lines 10-13). In EXAMPLE 2 a protein solution has a concentration of 2% (see PAGE 20, lines 21 and 22). The protein crystallized in solution number 28 of Solution Set III or Table III (see PAGE 10). Solution number 28 is made of 20% (w/v) PEG-8000 (see PAGE 10). Solution number 28 may optionally contain 0.1 M HEPES pH 7.5 (see

PAGE 10; PAGE 14, lines 13-15). It is noted that when two microliters of the protein solution is mixed with the two microliters of crystallization solution, the overall solution containing the protein solution and crystallization solution, as well as the protein, the reagents used to create the protein solution, and the added reagent or crystallization solution, would be diluted or have a lesser concentration such that the reagent or crystallization solution added to the protein would have a lower concentration than the original reagent or crystallization solution. Additionally, the specification on page 23, lines 1-5 states that the uneven concentration between the reagent solution in the first well and the reagent solution in the second well drives a natural vapor diffusion process towards equilibrium. Since vapor diffusion process occurs and reaches equilibrium by forming protein crystals in the first well or drop chamber in Hol et al., it would appear the reagents used in Hol et al. have an uneven concentration, where the reagents in second well has a higher concentration than the reagents in the first well (see PAGE 1, lines 23 and 24; PAGE 2, lines 1 and 2; PAGE 15, lines 5-35; PAGE 16, lines 1-35; PAGE 17, lines 1-35; PAGE 18, lines 1-35).

Therefore, Hol et al. include all the limitations in claims 1, 3-7, 9, 10, 12-18, and 20.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

15. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

16. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

17. Claims 1, 3-10, 12-20, 37, 39-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/00678 to Hol et al. in view of U.S. Patent No. 5,910,287 to Cassin et al. and/or U.S. Patent No. 6,503,456 to Knebel and/or U.S. Patent No. 6,340,589 to Turner et al. and/or U.S. Patent No. 6,296,673 to Santarsiero et al.

Referring to claims 1, 3-10, 12-20, 37, 39-42, Hol et al. disclose a microplate or high-throughput protein crystallization plate (10) comprising a frame (12) with a plurality of wells (26) formed therein (see ABSTRACT; FIGS. 1 and 2; PAGE 19, lines 1-8). Each well (26) includes a first well (32) with a relatively small concaved reservoir and second well (28) with a relatively large reservoir positioned near the relatively small

concaved reservoir of the first well (32) (see FIGS. 1 and 2; PAGE 19, lines 1-8). According to Merriam Webster Collegiate Dictionary, adjacent is defined as not distant or nearby. The first and second wells are near each other not distant from each other; therefore, the first and second wells are adjacent to one another. A channel (30) connects the first and second wells to one another (see FIG. 2; PAGE 19, lines 5 and 6).

According to Merriam Webster Collegiate Dictionary, capable is defined as having traits conducive to or features permitting, and enable is defined as to provide with the means or opportunity or make possible, practical, or easy. Therefore, the first well is **capable** of or permits receiving of a protein and reagent solution, and the second well is **capable** of or permits receiving of a reagent solution that has a higher concentration than the reagent solution within the first well. The first and second wells only need the ability or have the potential to receive the solutions. The first and second wells do not actually have to contain the solutions. Additionally, referring to claim 14, the frame has a footprint that is **capable** of or permits being handled by a robotic system. The frame only needs the footprint to have the ability or potential for being handled by a robotic system. The frame along with the footprint does not actually have to be handled by a robotic system. Analogously, since claim 15 is dependent on claim 14, the microplate has a footprint that is **capable** of or permits being handled by a Society of Biomolecular Screening compatible robotic handling system. The microplate only needs the footprint to have the ability or potential for being handled by a Society of Biomolecular Screening compatible robotic handling system. The microplate along with the footprint does not actually have to be handled by a Society of Biomolecular Screening compatible robotic

handling system. Additionally, referring to claims 6, 16, and 42, the wording of the claim allows for or requires that each well be positioned on the frame so as to **enable** or make possible or provide the opportunity of a liquid handling system to automatically deposit a sample solution into the first well and deposit a reagent solution into the second well. The wells only need to have the ability or potential for being handled by a liquid handling system. The wells do not actually have to participate in the act of receiving the solutions deposited by the liquid handling system. Analogously, since claim 17 is dependent on claim 16, each well is positioned on the frame so as to **enable** or make possible or provide the opportunity of a Society of Biomolecular Screening compatible liquid handling system to automatically deposit a sample solution into the first well and deposit a reagent solution into the second well. The wells only need to have the ability or potential for being handled by a Society of Biomolecular Screening compatible liquid handling system. The wells do not actually have to participate in the act of receiving the solutions deposited by the Society of Biomolecular Screening compatible liquid handling system.

However, Hol et al. disclose in EXAMPLE 1 that the first well or drop chamber (32) receives two microliters of the crystallization from the second well or central chamber/reservoir (28) (see PAGE 20, lines 8-10). Two microliters of dissolved protein is mixed with the two microliters of crystallization solution in the first well or drop chamber (32), and the crystallization chambers were sealed with Crystal Clear tap (see PAGE 20, lines 10-12). The dissolved protein was made by: 1) adding 1M ammonium hydroxide to a protein slurry until the solution becomes transparent, 2) adjusting the

solution to 200 mM sodium chloride by the addition of 5 M sodium chloride stock solution, and 3) adjusting the solution to pH 7.0 by addition of 0.1 M hydrochloric acid (see PAGE 19, lines 29-35; PAGE 20, lines 1-5). The final concentration of protein was determined to be 30 milligrams per millimeter, which is equivalent to 0.03 gram per milliliter or 3 grams per 100 milliliters or 3% (w/v) protein solution (see PAGE 20, lines 1 and 2). The protein crystallized in solution number 8 of Solution Set III or Table III (see PAGE 9). Solution number 8 is made of 2.0 M $(NH_4)_2SO_4$ or 26.4% (w/v) $(NH_4)_2SO_4$ using the molecular weight 132.1342 grams per mole of $(NH_4)_2SO_4$ (see PAGE 9). Solution number 8 may optionally contain 0.1 M buffer (see PAGE 9; PAGE 14, lines 10-13). In EXAMPLE 2 a protein solution has a concentration of 2% (see PAGE 20, lines 21 and 22). The protein crystallized in solution number 28 of Solution Set III or Table III (see PAGE 10). Solution number 28 is made of 20% (w/v) PEG-8000 (see PAGE 10). Solution number 28 may optionally contain 0.1 M HEPES pH 7.5 (see PAGE 10; PAGE 14, lines 13-15). It is noted that when two microliters of the protein solution is mixed with the two microliters of crystallization solution, the overall solution containing the protein solution and crystallization solution, as well as the protein, the reagents used to create the protein solution, and the added reagent or crystallization solution, would be diluted or have a lesser concentration such that the reagent or crystallization solution added to the protein would have a lower concentration than the original reagent or crystallization solution. Additionally, the specification on page 23, lines 1-5 states that the uneven concentration between the reagent solution in the first well and the reagent solution in the second well drives a natural vapor diffusion process

towards equilibrium. Since vapor diffusion process occurs and reaches equilibrium by forming protein crystals in the first well or drop chamber in Hol et al., it would appear the reagents used in Hol et al. have an uneven concentration, where the reagents in second well has a higher concentration than the reagents in the first well (see PAGE 1, lines 23 and 24; PAGE 2, lines 1 and 2; PAGE 15, lines 5-35; PAGE 16, lines 1-35; PAGE 17, lines 1-35; PAGE 18, lines 1-35).

Hol et al. do not disclose that the frame along with the plurality of wells is made from cyclo-olefin. However, Cassin et al. disclose that at least a portion of a bottom surface of a well of the plate is made from cyclo-olefin or substantially the entire bottom to facilitate ease of manufacture (see COL. 6, lines 35-39). Cyclo-olefin can also be used to form the walls of the plate, which is another way of reducing the inherent fluorescence of the plate (see COL. 6, lines 39-41). Cyclo-olefin may optionally comprise any portion of a plate, including the plate bottom, well walls, inter-well structural members that interconnect the wells, plate sides, plate upper or lower surfaces, as well as plate lids (see COL. 6, lines 42-46). Therefore, it would have been obvious to modify the microplate of Hol et al. to make the frame from cyclo-olefin as in Cassin et al. to reduce the inherent fluorescence of the plate and facilitate ease of manufacture to make the entire microplate assembly from cyclo-olefin since the bottom and walls of the plate are made from cyclo-olefin.

Hol et al. do not explicitly disclose a Society of Biomolecular Screening compatible robotic handling system handling a frame. However, Cassin et al. disclose that the footprint of a standard 96-well microtiter plate is 12.7 in length and 8.5 cm in

width (see COL. 8, lines 55-57). The generally accepted standard footprint for a standard 96-well microtiter plate for robotics application has a length of 12.77 +/- 0.25 cm and width of 8.55 +/- 0.25 cm (see COL. 8, lines 55-63). These standards are within the ranges of the Society of Biomolecular Screening standards, as stipulated in the immediate application. Knebel also discloses a microplate (1) with a frame (2) that complies with the Society of Biomolecular Screening standards (see COL. 5, lines 22-27). Turner et al. also disclose that standardizing the features of the microplate according to Society of Biomolecular Screening standards are recommended in the successful deployment of microplates in robotic handling and liquid handling instruments (see COL. 2, lines 8-18). Santarsiero et al. disclose a robotic handling system, including transportation of the microplates and liquid distribution of solutions into the wells of the microplates (see FIGS. 1, 4D, 4E, 4F, 4H, 5A, 5B, 5C, 6; COL. 8, line 67; COLS. 9 and 10). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the microplate of Hol et al. to make the frame with a certain footprint and well positioning that is handled by a Society of Biomolecular Screening compatible robotic handling system as in Cassin et al. and/or Knebel and/or Turner et al. and/or Santarsiero et al. to conform with very well known and accepted standards to ensure the availability of robots that can work with the microplate.

18. Claims 2, 11, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/00678 to Hol et al. and/or U.S. Patent No. 5,910,287 to Cassin et al. in view of U.S. Patent No. 6,379,625 to Zuk, Jr. and/or U.S. Patent No. 5,096,676 to McPherson et al.

Referring to claims 2, 11, and 38, Hol et al. and/or Cassin et al. do not explicitly disclose overlapping first and second wells. According to Merriam Webster Collegiate Dictionary, overlap is defined as to extend over or past and cover a part of, to have something in common with, to occupy the same area in part or lap over, or to have something in common. Zuk, Jr. shows first and second wells overlapping one another (see FIGS. 21-23; COL. 15, lines 34-67; COL. 16, lines 1-38). McPherson et al. also disclose overlapping wells (20) and (30) in which receptacle (30) is within reservoir (20) such that they occupy the same area in part or have an area in common (see FIGS. 1 and 2). The configuration allows crystals to grow in the support columns while providing an inexpensively fabricated device (see COL. 3, lines 5-18). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the microplate of Hol et al. and/or Cassin et al. to provide overlapping first and second wells as in Zuk, Jr. and/or McPherson et al. to provide a structure that facilitates crystal growing while providing an economically feasible device.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Quan whose telephone number is (703) 305-1947. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (703) 308-4037. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Elizabeth Quan
Examiner
Art Unit 1743

eq
March 7, 2003

Jill Warden
Supervisory Patent Examiner
Technology Center 1700